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INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

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SECRET

COUNTRY Hungary

SUBJECT Hungarian Air Force Communications Equipment

REPORT

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SOURCE EVALUATIONS ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE.

1. report on the 23 OCT 1957 communications equipment of the Hungarian Air Force. The following is 25X1 the significant parts of the report. OCT 31 1957

2. Every large Hungarian Air Force base was equipped with type P-20 ("Token") radar. The smaller bases were equipped with P-8 radar apparatus. Type P-20 sets were in use at Kecskemet, Kiskunlachaza, Szeged, and Tosza. In Budapest there was an air defense operations center. In view of the presence of radar equipment at every airebase, the aircraft "scrambled" from the base for interception purposes could be guided by their own base. The radar also permitted navigation back to the base. 1 NOV 1957 8COM 1 NOV 1957 8COM

3. Communications between the bases could be carried out by means of radio-telephony or radio-telegraphy, radio-telex, line-telex, and line-telephony. Most in use were communications apparatus of the R-50 type (capacity 1½ KW, frequency range 2.75 - 15 Mc/s, modulation A 1, A 2, and A 3; hookups for Hellschreiber and telex) and type R-40 (capacity 100 watt, frequency range 2 - 20 Mc/s, modulation A 1, A 2, and A 3; and hookup for Hellschreiber). Radio telegraphy was keyed by a bug. The telex apparatus used was the Siemens 52. For communications on a higher level use was made of a Soviet beam or unidirectional transmitter. All telegraphic traffic was in code. 84/80. w/incls

4. Every base had a navigation beacon, type RSO (long wave?). There were some indications that "Tacan" apparatus was used. As far as is known, the MIG-17's were not equipped with "homing" apparatus. Nothing is known of any automatic homer or fixer system at the bases.

5. The UKW-6 is the communications apparatus in the MIG-15 and the MIG-17. The UKW-250 is the ground to air communications apparatus.

   a. Specifications of the UKW-6: frequency range 100 - 150 Mc/s, power 26 volts, 4 channels, capacity 6 watts, headphone with throat microphone.

   b. The UKW-250: frequency range: 100 - 150 Mc/s, power 220 volts, 4 channels, capacity 250 watts, crystal controlled. The UKW-250 is built into an 8-ton

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truck (see attachment).

6. The crystals for the UKW-250 and the UKW-6 were provided with a code indicator. The users did not know the frequencies. The frequency was determined according to the following formula:

Frequency = $\frac{N - 1}{12}$ + 100 (N is the cipher on the crystal).

7. There was a UHF-apparatus in use with the Hungarian Air Force. Mention was also made of a Russian 24-channel UHF set [redacted] 25X1

→ 8. The MIG-17 was equipped with a nose radar and a tail-warning radar.

9. The UKW-250 is a crystal-controlled transmitter and was used in the ground-to-air communications with the MIG-15 and the MIG-17. The frequency range was from 100 to 150 Mc/s. There were four interchangeable crystals in the transmitter. The capacity was 250 watts. Frequency change was effected by means of an electro-mechanical installation which was put into operation by means of push buttons. The switch-over from one frequency to another took 10 seconds. The transmitter with the receivers and appurtenances were built into an 8-ton truck, type ZIS, model 151. Every such truck had three antennas: transmitter antenna, frame aerial, and the antennas for the receivers. Voltage was supplied by a generating set of 1.5 KVA, 220 V switch. The station operated on 220/380 v.

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